

## PATENT COOPERATION TREATY

## PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY  
(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference BCS033047-WO	<b>FOR FURTHER ACTION</b> See item 4 below	
International application No. PCT/EP2004/008638	International filing date ( <i>day/month/year</i> ) 02 August 2004 (02.08.2004)	Priority date ( <i>day/month/year</i> ) 14 August 2003 (14.08.2003)
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant BAYER CROPSOURCE AKTIENGESELLSCHAFT		

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).
2. This REPORT consists of a total of 9 sheets, including this cover sheet.
- In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

- |                                                 |                                                                                                                                                                 |
|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Box No. I   | Basis of the report                                                                                                                                             |
| <input checked="" type="checkbox"/> Box No. II  | Priority                                                                                                                                                        |
| <input checked="" type="checkbox"/> Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability                                                                |
| <input type="checkbox"/> Box No. IV             | Lack of unity of invention                                                                                                                                      |
| <input checked="" type="checkbox"/> Box No. V   | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> Box No. VI             | Certain documents cited                                                                                                                                         |
| <input type="checkbox"/> Box No. VII            | Certain defects in the international application                                                                                                                |
| <input type="checkbox"/> Box No. VIII           | Certain observations on the international application                                                                                                           |

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No. +41 22 338 82 70	Date of issuance of this report 03 July 2006 (03.07.2006)
	Authorized officer  Agnes Wittmann-Regis  e-mail: pt06@wipo.int

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

To:

# PCT

**Translation**

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

<div style="border: 1px solid black; width: 100%; height: 100%;"></div>		Date of mailing (day/month/year)
Applicant's or agent's file reference <b>BCS033047-WO</b>		<b>FOR FURTHER ACTION</b> See paragraph 2 below
International application No. <b>PCT/EP2004/008638</b>	International filing date (day/month/year) <b>02.08.2004</b>	Priority date (day/month/year) <b>14.08.2003</b>
International Patent Classification (IPC) or both national classification and IPC		
Applicant <b>BAYER CROPSCIENCE AKTIENGESELLSCHAFT</b>		

1. This opinion contains indications relating to the following items:

- |                                     |              |                                                                                                                                                                      |
|-------------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> | Box No. I    | Basis of the opinion                                                                                                                                                 |
| <input checked="" type="checkbox"/> | Box No. II   | Priority                                                                                                                                                             |
| <input checked="" type="checkbox"/> | Box No. III  | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability                                                                     |
| <input type="checkbox"/>            | Box No. IV   | Lack of unity of invention                                                                                                                                           |
| <input checked="" type="checkbox"/> | Box No. V    | Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/>            | Box No. VI   | Certain documents cited                                                                                                                                              |
| <input type="checkbox"/>            | Box No. VII  | Certain defects in the international application                                                                                                                     |
| <input type="checkbox"/>            | Box No. VIII | Certain observations on the international application                                                                                                                |

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(h) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/EP	Authorized officer
Facsimile No.	Telephone No.

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/008638

Box No. I

Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.  
☐ This opinion has been established on the basis of a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material  
☐ a sequence listing  
☐ table(s) related to the sequence listing
  - b. format of material  
☐ in written format  
☐ in computer readable form
  - c. time of filing/furnishing  
☐ contained in the international application as filed.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/008638

Box No. II

Priority

1. ☒ The following document has not yet been furnished:

☒ copy of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(a)).

☐ translation of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date in the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43bis.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/008638

Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

- ☐ the entire international application
- ☒ claims Nos. 10 (in part), 15 and 16. (in part) (industrial applicability)

because:

- ☒ the said international application, or the said claims Nos. 15, 16 (industrial applicability)  
relate to the following subject matter which does not require an international preliminary examination (*specify*):

See supplemental sheet

- ☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. \_\_\_\_\_  
are so unclear that no meaningful opinion could be formed (*specify*):

- ☐ the claims, or said claims Nos. \_\_\_\_\_ are so inadequately supported  
by the description that no meaningful opinion could be formed.

- ☒ no international search report has been established for said claims Nos. 10 (in part)

- ☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:

the written form

- ☐ has not been furnished
- ☐ does not comply with the standard

the computer readable form

- ☐ has not been furnished
- ☐ does not comply with the standard

- ☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-bis of the Administrative Instructions.

- ☐ See Supplemental Box for further details.

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/EP2004/008638

**Box No. V** Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

**1. Statement**

Novelty (N)	Claims	20, 21	YES
	Claims	1-19, 22-24	NO
Inventive step (IS)	Claims		YES
	Claims	19-24	NO
Industrial applicability (IA)	Claims	1-14, 17-24, 15 and 16 (in part)	YES
	Claims		NO

**2. Citations and explanations:**

**1. Prior art**

The following documents cited in the search report:

D1: WO 99/48869 A (WETCHOLOWSKY INGO; DREWES MARK

WILHELM (DE); ERDELEN CHRISTOPH (DE))

30 September 1999 (1999-09-30)

D2: WO 01/17973 A (WENDEBORN SEBASTIAN; MAETZKE

THOMAS (CH); SYNGENTA PARTICIPATIONS AG)

15 March 2001 (2001-03-15)

D3: WO 01/17353 A (GLOCK JUTTA; SYNGENTA

PARTICIPATIONS AG (CH)); 15 March 2001

(2001-03-15)

D4: WO 03/045957 A (DREWES MARK WILHELM; ERDELEN

CHRISTOPH (DE); FEUCHT DIETER (DE); FISC)

5 June 2003 (2003-06-05)

D5: DATABASE BEILSTEIN BEILSTEIN INSTITUTE FOR

ORGANIC CHEMISTRY, FRANKFURT-MAIN, DE;

XP002309693 Database accession no. BRN 7957401

D6: DATABASE BEILSTEIN BEILSTEIN INSTITUTE FOR

ORGANIC CHEMISTRY, FRANKFURT-MAIN, DE;

XP002309694 Database accession no. BRN 4968273

were taken into account in the substantive

examination.

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/008638

Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

**2. Novelty**

Claims 1-19 and 22-24 do not meet the requirements of PCT Article 33(2). The compounds (I), including all of the dependent claims, have already been described in D1. No specific definitions of variables that might be novel over D1 are apparent. The same applies to the intermediates, with the exception of those according to claim 10. The compounds according to claim 10 are, however, well known from other documents. See above, Box III. Although the compounds according to claim 9 do not appear to have been explicitly mentioned in D1, it is assumed that they are formed as intermediates in the process described on page 79, second equation. Furthermore, D1 describes components which can be added to the compounds (I). Thus, for example, page 145 mentions dicamba, which is listed in the present agent claim 19. Ultimately therefore, claims 19 and 22-24 are to be interpreted as novelty-prejudiced by D1.

**3. Inventive step**

The partial subject matter of present claims 19-24 which can still be regarded as novel does not, however, meet the requirements of PCT Article 33(3). D2 to D4 disclose the addition components listed in present claims 19-21. See search report for details. Since documents D2 to D4 also relate to compounds which are structurally very similar to present

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/008638

Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

compounds (I) and have qualitatively equivalent properties, the agents according to the application are considered obvious.

**4. Industrial applicability**

The PCT Contracting States do not have uniform criteria for assessing the industrial applicability of the partial subject matter of claims 15 and 16 in their present form. Patentability may also depend on the wording of the claims. The EPO, for example, does not recognize the industrial applicability of claims to the medical use of a compound; it may, however, allow claims to the first medical application of a known compound or to the use of such a compound in the manufacture of a drug for a new medical application.



Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of:

**Box III**

- 1) Claims 15 and 16 relate in part to subject matter which, in the opinion of this Authority, falls under PCT Rule 67.1(iv). Consequently no expert opinion has been established in respect of the industrial applicability of that part of the subject matter of said claims (PCT Article 34(4) (a)(i)).
- 2) The first phase of the search on claim 10 reveals an inordinately large number of compounds prejudicial to novelty. Even when, in the selection of variables A and D, the selection made was of only unsubstituted alkyl (D also hydrogen), 30 compounds prejudicial to novelty were found, even **without** taking account of patent literature. The two documents D4 and D5 (see below) represent merely arbitrary references given by way of example.

**Box VIII**

The numbering of the last two claims ought to be 23 and 24 rather than 33 and 34 (PCT Article 6).